Crowdability: a new configuration of accountability forms in crowdfunding campaigns of non-profit organisations

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Abstract

Purpose – This study analyses how different forms of online accountability – hierarchical/individualising, hierarchical/calculative and socialising accountability – influence online financing success of non-profit organisations (NPOs).

Design/methodology/approach – The study is based on 797 NPOs' projects listed on three international crowdfunding platforms providing space for NPOs to present, account for and fund social projects.

Findings – Results show that accountability forms developed online play significantly different roles in NPOs' financing. While online hierarchical/individualising and socialising accountability enhance NPO funding, hierarchical/calculative accountability reduces financing success.

Research limitations/implications – The empirical analysis is limited to the specific research context. However, the research provides theoretical and practical insights for the accounting literature.

Practical implications – The paper recommends that NPOs invest more in explaining their past and future activities rather than reporting on pure financial performances, as this may lead to stakeholders' perception of mission drift and reduce financing success.

Originality/value – This research enhances the understanding of online accountability and its significance in securing financial resources for NPOs by highlighting the necessity of examining various accountability forms individually, as they may serve distinct functions in the financial sustenance of NPOs.

Keywords Crowdability, Crowdfunding, Forms of accountability, Fundraising, Online accountability, Non-profit organisations

Paper type Research paper

1. Introduction

Modern artefacts, such as Internet platforms, represent new spaces for "online accountability practices" (Cooley, 2020, p. 1423) that NPOs can produce, update and share to report to interested parties (Cavicchi and Vagnoni, 2022; Connolly and Dhanani, 2013; Gandia, 2011; Tremblay-Boire and Prakash, 2015). Among Internet platforms, crowdfunding platforms allow NPOs to combine accountability spaces and funding possibilities reaching new potential stakeholders and funders (Dumont, 2013; Li *et al.*, 2018). As financing represents one

of the most challenging accountability issues of NPOs (Cordery *et al.*, 2019), it is worth exploring how online accountability is related to NPOs' online financing opportunities.

Accountability toward the funders represents a fundamental challenge for NPOs (Plaisance, 2023; Lehner and Nicholls, 2014; Lehner *et al.*, 2019; Ebrahim and Weisband, 2007). "Giving account" (Ebrahim, 2003; Ezzamel *et al.*, 2007) to their funders requires NPOs to develop specific accountability strategies. NPOs must implement narratives, explanations and relationships to represent to their funders how financial resources will be used. Indeed, NPOs' nature and mission are complex and multidimensional (Ebrahim and Weisband, 2007). NPO's funders expect to be informed about financial and non-financial expected outcomes (Cordery *et al.*, 2019), such as social impacts. Since it has been studied that topic and means are connected in delivering accountability (Westerdahl, 2020), NPOs' accountability strategies are shaped into different forms (Chu and Luke, 2023), hierarchical and socialising (Roberts, 1991, 2001), to comply with funders' multiple information expectations.

Nevertheless, in existing studies (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019), accountability is analysed at an aggregated level, and the effects of different accountability forms – hierarchical (individualising and calculative) and socialising – on NPO financing are not disentangled and still need to be explored (Roberts, 1991, 2001). Hierarchical/individualising form of accountability emerges when accountors produce evidence that they possess the necessary competencies to legitimately occupy a specific power position. Hierarchical/calculative accountability is related to the use of numbers, budgets and documents to represent accountor's performance or expected outcomes. Socialising accountability, finally, is a process of giving accounts that implements face-to-face narratives between peers to create, organise and convey information on the accounts' results (Roberts, 1991, 2001).

Since the nature and mission of NPOs require implementing different accountability forms to fulfil funders' expectations, it is worth exploring the relationship between the development of these forms and the NPOs' ability to collect the financial resources they need to operate and deliver the financial and non-financial impacts.

This study aims to identify online accountability forms involved in NPO funding and test whether the different forms of accountability benefit or hinder NPOs financing. In particular, the work explores the following research question:

> What are the impacts of different accountability forms on NPOs' financing, i.e. hierarchical/individualising, hierarchical/calculative and socialising accountability developed through online platforms?

To this research question, we collect data from three international crowdfunding platforms – StartSomeGood, Chuffed and Indiegogo – specialised in financing NPO projects. Using an explorative factor analysis, we show that hierarchical/individualising, hierarchical/calculative and socialising accountability forms are significantly different suggesting the importance of investigating the effects of different accountability forms separately. Then, through multivariate regression models, we illustrate that various forms of online accountability developed by NPOs affect their financing success differently. Particularly, hierarchical/individualising and socialising forms of accountability increases NPOs financing, while hierarchical/calculative form has negative effect on NPO financing success.

Drawing on its theoretically informed empirical results, the present paper advances three main contributions. First, the study advances the literature on the effects of accountability on NPOs financing (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019), by showing that the different forms of accountability (hierarchical/individualising, hierarchical/calculative and socialising) differently impact on NPOs' financing. While online hierarchical/individualising and socialising accountability enhance online fundraising for NPOs, hierarchical/calculative accountability reduces NPOs online financing. This suggests

that the analysis on the effects of accountability on NPOs financing should consider accountability forms separately. Based on these results, we can configure a new online accountability system for NPOs that raises financial resources through crowdfunding called "*Crowdability*".

Second, the study contributes to the debate about the ongoing process of virtualizing accountability (Cavicchi and Vagnoni, 2022; Lai *et al.*, 2014) by bringing evidence that, in the case of NPOs' crowdfunding campaigns, online accountability (developed through different forms) exhibits a tangible effect on NPOs' activities, such as financing.

Third, the paper makes a theoretical contribution to the literature on accountability forms (Roberts, 1991, 2001; Westerdahl, 2020) by proposing a conceptual separation of the calculative and individualising dimensions within the hierarchical form of accountability. This suggestion is based on the observation that these dimensions play distinct roles in representing the account's missions, performances and values.

The practical implications of the paper suggest that NPOs, in order to enhance financing, should invest more in hierarchical/individualising and socialising online accountability while limiting numbers and budgets (hierarchical/calculative accountability) as this reduces online financing.

The paper is structured as follows. Section 2 presents the theoretical framework and research hypothesis development. Section 3 presents the dataset and methods deployed. Results are then given in Section 4. Finally, discussion, implications and conclusions are addressed in Section 5. Appendix completes the work.

2. Theoretical framework and research hypothesis
2.1 NPOs' online accountability and financing
NPOs represent extremely undefined and unstandardized types of organisation, making the relationship between NPOs and their stakeholders challenging to define using standard predetermined models (Cordery *et al.*, 2010, 2019; Ebrahim and Weisband, 2007). Hence, to meet stakeholders' information needs and be accountable for their performances, NPOs are compelled to develop sophisticated and multidimensional accountability systems (Conaty and Robbins, 2023; Plaisance, 2023; Lee *et al.*, 2023; Ebrahim and Weisband, 2007). Indeed, legitimacy for NPOs represent a challenging issue due to their multiple social and financial goals (Lehner *et al.*, 2019).

New artefacts, such as Internet platforms, represent modern spaces in which accountability can be organised, shared and conveyed with interested parties (Cavicchi and Vagnoni, 2022; Li *et al.*, 2022). The innovative aspect of online accountability is related to three characteristics. In the first place, the Internet enables to close the physical distance between accountors and accountees allowing immediate and economical diffusion anywhere of published information (Dethier *et al.*, 2021). In the second place, online accountability can be constantly updated, corrected and added with fresh information (Tremblay-Boire and Prakash, 2015). In the third place, interaction between accountors and accountees is possible online where interested parties can share their views and virtually interact with each other and with the information provider (Cavicchi and Vagnoni, 2022). Online accountability, therefore, can assume either hierarchical (Lowe *et al.*, 2012) or socialising forms (Lai *et al.*, 2014), or both.

On the practical level, the development of NPOs' online accountability has been studied by highlighting its ability to enhance transparency (Bonsón and Ratkai, 2013; Dumont, 2013), social capital (Xu and Saxton, 2019), stakeholders' engagement (Tian *et al.*, 2021), financial management (Plaisance, 2023) and financing (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019). Plaisance (2023) shows that accountability practices are positive determinants of financial effectiveness of French NPOs, suggesting a positive relationship between

accountability and financial performance of NPOs. More specifically, it has been explored if and how the development of online accountability fosters (or reduces) NPOs financing possibilities (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019). This positive relationship can also be explained because Internet technologies allow room for communication practices that convey relevant information, such as mission, identity, opportunities and performance reports, to relevant stakeholders, such as funders (Shin and Chen, 2016). Bellante *et al.* (2018) show how NPOs' voluntary accountability developed online through social networks, for example, enhances the legitimization and fundraising of NPOs. Similarly, Alexander *et al.* (2023) find that accountability-related information developed on Internet platforms enhances the funding success of NPOs. They explore how accountability, as a means to address NPOs' institutional pressure for transparency, can be developed online and how online accountability enlarges the amount of funding collected by NPOs. In the case of crowdfunding, these accountability systems are based on ex ante explanations (Broadbent, 1996; Jackson, 1982) since the relationship between NPOs and their funders develops during the campaign and fades when the campaign ends.

However, these studies (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019) consider accountability as a single concept, concentrating on the volume, quality and level of accountability information an organisation makes available online. Accountability is related to the type of information (narratives, calculations, budgets, impressions etc.) and how this information is conveyed to interested parties. How accountability is designed can be associated with different accountability forms (Roberts, 1991, 2001). Among accountability forms, Roberts (1991, 2001) identifies the following: hierarchical/individualising, hierarchical/calculative and socialising forms of accountability. Due to complex and multidimensional NPO goals (Ebrahim and Weisband, 2007), NPOs are expected to implement different forms of accountability to report to their heterogeneous funders about how they plan to reach their goals (Cordery *et al.*, 2019). Thus, the effects of accountability should be disentangled to capture the effects of different accountability forms on NPOs' financing success.

Hence, building on the existing literature and in order to fill the research mentioned above gaps, we formulate the following research question:

RQ. What are the impacts of different accountability forms on NPOs' financing, i.e. hierarchical/individualising, hierarchical/calculative and socialising accountability developed through online platforms?

2.2 NPOs online accountability forms

Accountability encompasses the diverse and complex construction of identities and relationships with various stakeholder groups (Roberts, 1991, 2001). This process shapes different forms of accountability, i.e. how different materials (information) are collected, organised and shared, in order to address the construction of self-identities (hierarchical/calculative form of accountability) and relationships (socialising form of accountability).

While for-profit organisations point to a limited number of aims (principally profit maximisation), NPOs operate even for a non-financial benefit. NPOs intrinsically pursue multiple goals and it has been studied that the accountability relationship between NPOs and their stakeholders, such as funders, is a potentially "problematic" process (Yasmin and Ghafran, 2019, cited in Plaisance, 2023). The literature has widely studied accountability for NPOs evidencing the need to combine different forms to reach their information requirements (Ahrens *et al.*, 2016; Costa *et al.*, 2018).

Since Internet platforms allow the displaying as well the co-constructing of accountability (Dumont, 2013; Li *et al.*, 2022), NPOs may find these platforms as suitable spaces to develop different forms of accountability they are required to provide. The emergence of feedback tools such as those offered by crowdfunding platforms suggests that it is possible to find

ways for NPOs to communicate and collect different views toward and from their funders and the public that represent the "crowd".

Connolly and Dhanani (2013) explore the web as a space where NPOs create and share accountability. They investigate how NPOs' online accountability develops clarity and trust with stakeholders. Their findings suggest that most of the websites are designed by professional agencies and, for this reason, appear graphically attractive and well-structured. However, only a few websites delivered clarity and trust about NPOs' activities. This evidence reinforces the urgency of disarticulating NPOs' accountability forms to understand the impacts of NPOs' online accountability. Similarly, Gandia (2011) describes how ornamental, informational and relational dimensions of accountability can be enacted separately (or jointly) by NPOs on the web.

Considering the insights presented above, we expect that, even online, NPOs would develop different forms of accountability and that these forms would appear significantly disarticulated. On this basis, we hypothesise that:

H1. Online accountability of NPOs can be specialised into hierarchical/individualising, hierarchical/calculative and socialising forms of accountability.

We investigate these forms of online accountability in the case of NPOs in crowdfunding campaigns, and we name such a concept as "*Crowdability*".

2.2.1 Online hierarchical/individualising accountability and financing of NPOs. Accountability can be seen as hierarchical (Roberts, 1991, 2001) in how one produces self-identification and calculations to legitimise their formal position of power. The hierarchical dimension is represented by the idea that the accountors depict themself over other individuals and institutions within hierarchical relationships and using top-down reporting systems. Hierarchical accountability differentiates between upward, to funders, regulators and other influential stakeholders (Roberts, 1991; Unerman and O'Dwyer, 2006; O'Dwyer and Unerman, 2007), and downward toward beneficiaries, the environment and other less powerful stakeholders (Roberts, 1991, 2001; Unerman and O'Dwyer, 2006; O'Dwyer and Unerman, 2007).

Individualising self-identification explains to others the nature of the mission pursued and the possessed competencies necessary to occupy a societal position devoted to that specific mission (Roberts, 2001). In this view, the legitimization to hold a specific position in society is fuelled by self-identification narratives and supporting materials, which elucidate and demonstrate the adequacy of the task both before and after its undertaking (Li *et al.*, 2022).

In the case of NPOs, it has been studied that hierarchical/individualising accountability plays a crucial role in depicting NPOs' mission and in explaining activities and performances from inside to outside (Kingston *et al.*, 2020). NPOs benefit from the process of self-representing their mission and achievements to powerful and less powerful stakeholders, especially in terms of trust and legitimacy (Ahrens *et al.*, 2016; Awio *et al.*, 2011; Goddard and Juma Assad, 2006; Vakkuri *et al.*, 2021), even in the case of accountability of NPOs developed online (Chu and Luke, 2023).

For these reasons, we expect that the implementation of online hierarchical/individualising accountability by NPOs could be positively related to the financing success of NPOs since financing is generally tightly related to legitimacy and trust shown by stakeholders toward the organisation's existence (Awio *et al.*, 2011). Accordingly, we formulate the following hypothesis:

H2. Hierarchical/individualising form of accountability enhances the success of NPOs' financing.

2.2.2 Online hierarchical/calculative accountability and financing of NPOs. Hierarchical/calculative accountability (Roberts, 1991, 2001; Westerdahl, 2020) is related to using

numbers, budgets and documents to inform and account for individual and organisational performances. Using numbers and budgets is particularly common in market relationships where the separation between principal and agent is regulated mainly within financial exchanges (Lowe *et al.*, 2012).

In the for-profit realm, the connection between *individualising* and *calculative* forms of accountability is tight and generally implemented in what Roberts (1991) calls a mutually reinforcing relationship. The relationship between for-profits and their investors relies significantly on hierarchical accountability based on calculative techniques as this form of accountability serves the main accountability demands advanced by for-profits' main stakeholders: investors (Lowe *et al.*, 2012). Indeed, calculations support in representing for-profits' ability to achieve their primary objective: profit maximisation.

Conversely, in the case of NPOs, funders do not expect NPOs to address pure profit maximisation but rather to pursue their multifaceted mission which encompasses a mishmash of different goals impacting on a wide range of interested stakeholders (Cordery, 2019; Ebrahim and Weisband, 2007). Therefore, the accountability demanded by NPOs funders extends beyond mere financial performance metrics. In fact, hierarchical/calculative accountability practices advanced by NPOs can even suggest overemphasis on financial aspects rather than in delivering non-financial impacts (Messner, 2009; Joannides, 2012; McKernan, 2012). Indeed, NPOs' funders can include individuals who could even deny they are funders and the production of calculative accountability by NPOs could lead to a "mission drift" perception (Ebrahim *et al.*, 2014; Jones, 2007; Weisbrod, 2004). This is supported by previous research suggesting that reminders linked to economic and financial aspects can diminish prosocial tendencies, as individuals may weigh what they are sacrificing against what they anticipate in return (Reutner and Greifeneder, 2018; Vohs, 2015). In particular, in social and environmental oriented crowdfunding campaigns, there is evidence that increasing monetary terminology could even diminishes the intrinsic funders' motivation to contribute, negatively affecting project fundraising ability (Chan *et al.*, 2021).

Given these premises, we expect that the production of online hierarchical/calculative accountability by NPOs could be negatively related to the online financing success of NPOs. Accordingly, we formulate the following hypothesis:

H3. Hierarchical/calculative form of accountability negatively affects the success of NPOs' financing.

2.2.3 Online socialising accountability and financing of NPOs. Socialising accountability (Roberts, 1991) represents a process of giving account that emerges across predetermined hierarchical power relations. The peculiarity of socialising accountability is that it implements narratives and face-to-face interactions between individuals to organise, convey and represent the activities and the performances undertaken by single individuals or corporations of individuals. This type of accountability crystallises between individuals sharing similar power positions in horizontal relationships across hierarchies. Within these horizontal relationships socialising forms of accountability are based on social accounting and informal communication that arises from face-to-face contact between individuals (Lai *et al.*, 2014).

Since conflicting interests are mediated across hierarchical levels by mutual understanding, a "sense of social solidarity" (Panozzo, 1996, p. 194) can arise from dialogues between the accountee and the accountor that facilitates accountability and shared responsibility (Roberts, 1991). Compared to hierarchical forms of accountability, socialising accountability can rely on developing a shared and credible understanding of organisational reality where hierarchical asymmetries are reduced and trust fostered.

In online spaces, literature has advanced the idea that Internet platforms can encourage real-time two-way dialogical conversations with stakeholders (Manetti and Bellucci, 2016;

Bellucci and Manetti, 2017). Internet platforms, such as social media, have been designed and implemented to reduce the physical distance between individuals and provide additional opportunities for socialising accountability, like engaging in accountability through digital interactions (Cavicchi and Vagnoni, 2022; Lai *et al.*, 2014; Lehner and Nicholls, 2014). Indeed, Internet platforms are instrumental in reducing power imbalances between interested parties and allow all voices to be heard and shared. The possibility to reproduce horizontal relationships based on informal exchanges between peers (Roberts, 1991) sets the conditions for socialising accountability to be produced and maintained online (Cavicchi and Vagnoni, 2022; Lai *et al.*, 2014).

The literature has explored the effects of the implementation of dialogical Internet platforms, such as social media, on NPOs' financing (Alexander *et al.*, 2023; Chu and Luke, 2023; Shin and Chen, 2016). Findings indicate that the interactions and content sharing facilitated by these platforms contribute positively to NPOs' financial resources. For instance, Shin and Chen (2016) advance the evidence that interactive communication developed and shared within social media spaces is positively associated with the level of fundraising. Similarly, Alexander *et al.* (2023), for example, find that social media (Facebook and Twitter) engagement, developed through comments and shares to other online friends and followers, enhances NPOs financing.

Therefore, we expect that the development of online socialising accountability enhances NPOs' funding. Thus, drawing on existing literature, the fourth hypothesis is proposed as follows:

H4. Online socialising form of accountability enhances the success of NPOs' financing.

3. Data and methods
3.1 The context of crowdfunding for NPOs
Crowdfunding is a network-based mechanism that increases funding access and stimulates collective action (Bagheri *et al.*, 2019; Toxopeus and Maas, 2018). Crowdfunding is defined as "an open call, essentially through the internet, for the provision of financial resources either in the form of donation or in exchange for some form of reward and/or voting rights in order to support initiatives for specific purposes" (Schwienbacher and Larralde, 2010, p. 4).

Different crowdfunding models have been recognized: investment crowdfunding models (lending and equity crowdfunding) where individuals provide funding to a project in exchange for capital or debt instruments, and non-investment crowdfunding models (reward and donation crowdfunding) where individuals provide funding to a project without any obligation from the fundraiser to provide a monetary return for the funds raised. Literature pinpoints that donation and reward crowdfunding can provide seed funding to programs with diversified social goals in which backers (funders) are likely to consider the public good instead of investment returns (Gerber *et al.*, 2012). For this reason, they appear particularly suitable to support the financing needs of NPOs (Hemer, 2011; Lehner, 2013). Meyskens and Bird (2015) assert that the reward and donation models are the best models if the organisation has higher social interest than the economic value since funders emphasise the social value over the economic one.

On crowdfunding platforms, NPOs can connect directly with funders. As for social-oriented projects, backers (funders) could also be consumers that enlarge a firm's market base to spread widely social innovation, improve the project's legitimacy (Lehner and Nicholls, 2014), and promote business scalability (Hörisch, 2018). In addition to fundraising, crowdfunding offers NPOs other benefits, such as supplementary information from the target market, early feedback for products that have not yet been marketed, and public and social media attention (Belleflamme *et al.*, 2013, 2014; Gerber *et al.*, 2012). Most of the literature

shows that the nature of NPOs is closely related to backers' motivations and the consciousness of minor and longer-term results (Bento *et al.*, 2018; Eccles *et al.*, 2011). From a financial perspective, similar to what is relevant for social investors in general, is confirmed in crowdfunding social projects where backers typically do not pay much attention to financial information, concentrating instead on the firm's ideas and core pro-social values (Lehner, 2013; Lehner *et al.*, 2019). This aspect is emphasised by Chan *et al.* (2021), who demonstrate that in crowdfunding for sustainable-oriented projects, placing excessive emphasis on the economic aspects of a project rather than its core ideals and values sends a potentially discouraging message to backers. This approach diminishes individuals' intrinsic motivation to contribute and can lead to the induction of individualistic behaviour with negative consequences on the amount collected.

Indeed, crowdfunding attracts funders who are motivated to help others in need. Studies that explore why people donate in a non-investment crowdfunding campaign (Moleskis *et al.*, 2019; Van Teunenbroek and Hasanefendic, 2023) show that backers are driven by extrinsic motivations, i.e. material rewards, but above all, intrinsic and social motivations, i.e. immaterial benefits. The latter literature pinpoints the effect of a warm glow, a sense of satisfaction and fulfilment by donating, public recognition, altruism and the development of direct connection with project's proponent and friendship with other backers (Bagheri *et al.*, 2019; Bretschneider and Leimeister, 2017; Bürger and Kleinert, 2021; Gleasure and Feller, 2016; Li *et al.*, 2018). In donation-based crowdfunding, intrinsic and social motivations are pivotal in motivating and facilitating funding behaviour. Consequently, backers not only enhance their satisfaction but also fulfil their need for approval through meaningful interactions within society (Bagheri *et al.*, 2019; Bretschneider and Leimeister, 2017; Gerber *et al.*, 2012; Gleasure and Feller, 2016). While backers' motivations share similarities with those influencing charitable and philanthropic behaviour (Moleskis *et al.*, 2019; Van Teunenbroek and Hasanefendic, 2023), they also involve accepting the inherent risks of supporting a new venture, including project failure. This underscores the profound impact of pro-social motives on funding decisions.

As supported by Moleskis *et al.* (2019), the internet and crowdfunding platforms are potent and efficient tools for raising awareness about individuals in need and mobilising support. These platforms provide a dynamic and far-reaching avenue to connect with compassionate individuals globally, facilitating effective outreach and fostering a collective spirit of assistance. Thus, the crowdfunding structure democratises funding for NPOs, expanding the potential funder base compared to when this was restricted to traditional financial channels.

3.2 Sample

Our sample is composed of 797 NPOs' projects listed on three different crowdfunding platforms between 2015 and 2019. We focus on three crowdfunding platforms: Indiegogo, StartSomeGood and Chuffed. These crowdfunding platforms have been chosen following the criteria to have hosted social and environment-oriented projects under specific categories. NPOs' projects in the sample refer, for example, to projects that work to protect and improve waterways, support sustainable food or improve scholar level.

From a methodological perspective, it takes work to identify social projects. Previous studies have adopted a subjective evaluation of their social/green/sustainable orientation (Calic and Mosakowski, 2016; Hörish, 2018) or referred to keywords in the description of the project (Pitschner and Pitschner Finn, 2014; Cumming *et al.*, 2017; Vismara, 2016; Butticé *et al.*, 2018). In this last case, the risk is to focus only on those social causes defined by common keywords, leaving out the many subcategories of social causes that do not represent traditional social issues. Thus, we refer to the project's classification adopted by the platforms because it is one of the first and most objective pieces of information that potential backers explore during the selection procedure.

In detail, StartSomeGood and Chuffed are reward-based platforms specialised in social NPO projects. StartSomeGood launched in 2011 to "*build the world's best mobilising platform for changemakers, allowing them to raise funds, grow the community, and gain the skills and contacts they need to make a difference*" (StartSomeGood.com). Chuffed is an Australian social platform that aims at "*building a transparent, inspiring, and personalised way to make a change,*" among others, it has a specific category for social NPOs. For these two platforms, the projects selected and included in the sample were those published in the "environment," "community," and "social enterprises" categories. Moreover, Indiegogo was chosen as it is one of the largest general reward-based CFD platforms worldwide, and it was considered in other studies on social and environmental projects (Hörisch, 2018). In particular, Indiegogo's projects can be retrieved under the section "Community projects", which encompasses categories such as environment and human rights. All platforms work with an "all-or-nothing" model, i.e. the proponents can keep the funding raised if they reach the target amount requested in the campaign.

The variety of the platforms allows us to provide robust results as also previously pointed out by other studies that required the adoption of a multiplatform perspective (see, for example, Cumming and Groh, 2018). The challenge in adopting a multiplatform perspective is to have a different kind of campaign structure. Hence, in our study, we refer to common variables for all the campaigns. For each project, we manually collected information regarding campaign accountability and regarding the success of the campaign in terms of the amount of financial resources collected and number of backers/funders. All information is retrieved from closed campaigns; therefore data were collected at the end of the campaign. Finally, note that organisations are located worldwide and represent a sufficient randomised sample, as shown in the Appendix.

3.3 Variables and measures

To address our research hypotheses, we examine the relationship between hierarchical/individualising, hierarchical/calculative, socialising forms of accountability and the financing success of NPOs. Thus, our dependent variable is the amount of financial resources collected by NPOs during crowdfunding campaigns, while our independent variables are represented by accountability forms emerged from the exploratory factor analysis and grouped into theoretically-informed sub-groups.

3.3.1 Dependent variables. 3.3.1.1 Financing success. We measure the financing success of NPOs as the total amount (in dollars) raised by NPOs from funders in log-transformation. This measure has been used by other authors and represents an established benchmark of crowdfunding campaign success in particular of NPOs projects (Alexander *et al.*, 2023; Hommerová, 2020; Hörisch, 2018; Löher *et al.*, 2018; Zhou and Ye, 2019). In the specific context of our research, we measure the financing success of NPOs as the amount raised at the end of the campaign in which NPOs present themselves and account to stakeholders for their projects and activities.

3.3.1.2 Number of backers. In addition to the total amount raised, another variable widely employed to analyse the success of crowdfunding campaigns is the number of backers/funders (Vismara, 2016) in log-transformation. This variable counts the funders who support NPO projects in exchange for tangible or intangible rewards.

3.3.2 Independent variables. 3.3.2.1 Hierarchical/individualising accountability. We measure hierarchical/individualising accountability through the NPOs' use of online spaces to hierarchically represent themselves by bringing, publishing and organising materials, such as documents and narratives, able to deliver a sense of the self (Roberts, 1991, 2001). We included in the category of hierarchical/individualising accountability those variables that presented self-identity and monological (Kingston *et al.*, 2020) ways to online present and represent the mission and the performances of NPOs. All these spaces are hierarchical in the

way that only allows entities to self-represent themselves leaving users (stakeholders) passive and uninvolved in the process of constructing accountability.

NPO's online mission narrative (binary) is related with the self-presentation of the NPO and its project on the crowdfunding platform and it is connected to individualising accountability since it allows NPOs to legitimise their existence by hierarchically explaining why the proposed projects are relevant for stakeholders. The abundance of accountability information made available through online platforms has been studied by the literature (Nikidehaghani, 2022; Shin and Chen, 2016; Zhou and Ye, 2019) and is likely to be associated with an individualising form of accountability since there is a knowledge and power asymmetry between the accountor and the accounteer(s) and no interaction (Lowe, 2012; Roberts, 1991).

NPO's further information published on the website (binary) represents a variable of hierarchical accountability in the way in which NPOs use their website to publish extra information, such as on their achievements (Dumont, 2013).

Proponent type (categorical) differentiates among the type of NPO (verified NPOs, Collective proposals, NPOs representatives) and represent proponents' characteristics which are shared in the crowdfunding platforms (Fortezza *et al.*, 2023). The three different categories of proponents range from a single NPO that is verified by the platform, to collective campaigns proposing the same project and campaigns proposed by an individual representing the NPO, from a fully to a less formalized organizational structure. It represents online hierarchical accountability in the way in which it informs stakeholders, through online platforms, on a specific NPO's characteristic in a monological way.

NPO's Facebook page (binary) and NPO's *Twitter page* (binary) are online spaces provided by social networks (Wang *et al.* (2023) that allow additional spaces for NPOs to talk about themselves (Zhou and Ye, 2019). In this sense, NPO's Facebook and Twitter pages can be associated with hierarchical/individualising accountability as, similarly to website pages, allow NPOs to explain themselves over the public in a one-way manner. In addition, some authors (Alexander *et al.*, 2023) highlighted how social network pages represent accountability spaces that enhance NPOs' financing.

3.3.2.2 Hierarchical/calculative accountability. Calculative/hierarchical accountability (Roberts, 1991, 2001) has been associated with reporting practices developed through the use of numbers and documents in order to represent and legitimise one's expected or achieved performances (Roberts, 1991, 2001; McKenan, 2012).

Financial information (categorical) expresses the presence of published forecasted financial information on the project and its expected financial performances. It distinguishes among three levels of economic information dissemination by the NPO: the absence of published economic data, the publication of a synthetic summary of economic figures, and the provision of detailed financial documentation, including budgetary information. According to Lowe *et al.* (2012) online production of calculations and financial budget can be associated with "technological calculative accountability" (p. 184).

Project content and documentation (categorical) reports whether the NPOs published an either synthetic or extensive description of the proposed project and whether some documentation was attached. The specific description of the proposed project together with the documentation attached can be related to the production of online calculative accountability (Cooley, 2020). Specifically, we categorise projects into three groups: those with only a brief summary, those with an extensive description detailing all projects' activities, and those including additional documents linked to the project description.

Performance follow-up (binary) is associated with hierarchical/calculative accountability as it expresses whether the NPO provided information on the financial progress of the project on the platform. This variable refers to the update of financial numbers and budgets provided online by the NPO and, for this reason, emerges a connection with the production of online accountability (Lowe *et al.*, 2012).

Technical competences of the team (binary) reports whether the NPO published a structured list of technical competences of the team involved in the project. The sharing of precise structured information on involved individuals' competences can be associated with the production of online hierarchical/calculative accountability. Indeed, since the production of documentation and financial budgets requires specific technical competencies, providing information on the competences of the team addresses the hierarchical accountability demands of stakeholders interested in NPOs' economic and managerial performances (Cooley, 2020; Lowe *et al.*, 2012).

3.3.2.3 Socialising accountability. We measure socialising accountability as the connections of the NPO developed online. Chu and Luke (2023) specifically link the development of online connections of NPOs through social networks, for example, with the development of online socialising accountability as described by Roberts (1991, 2001). The paper highlights how connections developed through social networks, such as Facebook, "facilitate dialogue with stakeholders" (Chu and Luke, 2023, p. 76).

During crowdfunding campaigns, potential funders can view the promotion of NPO's project in various online communities, including Twitter and Facebook. In addition, social network visitors can share contents to their own communities of friends creating a sort of socialising sharing of information between peers.

Number of Facebook shares of the NPOs campaigns. People can reshare on their Facebook page, and to their connections, the contents published on the NPOs' crowdfunding project. Resharing can be seen as a strong online engagement action (Alexander *et al.*, 2023) as it can be compared to an exchange of "voices" between peers within online socialising occasions (Dillard and Vinnari, 2019).

Number of Twitter retweets of the NPOs campaign. Tweeting implies sharing some content within one's communities developed on Twitter. Alexander *et al.* (2023) has used the number of tweets to analyse the effect of social network engagement on NPOs' financing. Retweets of the campaign can be associated with socialising accountability in the way in which they show how potential funders discuss the project with their online friends and peers.

In this way, the NPO creates indirect ties with new potential funders. Indirect ties are essential in developing exchange relationships that affect funding success (Mollick, 2014).

3.3.3 Control variables. We control the presence of a *video* in the campaign using a variable that has value 1 when it is present and 0 otherwise (Mollick, 2014). The video does not disclose standard information about the project and there are no constraints in preparing the storytelling. Therefore, as other authors highlight (Kolbe *et al.*, 2022; Korzynski *et al.*, 2021), it deserves to be explored as a standalone element. In fact, specific aspects of the video (e.g. presence/absence of the team, company presentation, economic information) might be considered as other individual aspects or the presence of video itself as control variable (Mollick, 2014; Lagazio and Querci, 2018).

Secondly, we estimate the effect of proposing the NPO's project on a particular platform by including two binary variables that identify the project in Indiegogo or StartSomeGood versus Chuffed. Such controls denote the role that the platform's selection has on the performance of the campaign.

Finally, we include the target amount that represents the amount proposed by NPOs to be reached to successfully close the crowdfunding campaign. Table 1 summarises variables and their related features.

3.4 Methods

To address *H1* we implement factor analysis that allows to isolate a large number of variables into fewer factors. This statistical technique proceeds by extracting maximum common variance from the dataset's variables and aggregating them into a common score. Since factor

Variable	Definition	Form of accountability	Reference(s)
Financing success (dependent)	The total amount financed during the campaign	–	Hommerová (2020), Hörisch (2018), Löher et al., (2018), Zhou and Ye, 2019
Number of backers (dependent)	The total number of funders of the crowdfunding campaign	–	Vismara (2016)
Proponent type	Categorical variable with value 1 if verified NPOs; 2 collective proposal; 3 if individual representative	Hierarchical/ individualising	Fortezza et al. (2023)
NPO's online mission narrative	Binary = 1 if information on the organization's mission is provided in a specific section; 0 otherwise	Hierarchical/ individualising	Nikidehaghani (2022), Shin and Chen, 2016, Zhou and Ye, 2019
NPO's further information published on the website	Binary = 1 if the project is linked to the organization's website; 0 otherwise	Hierarchical/ individualising	Dumont (2013)
NPO's Facebook page	Binary = 1 if the organization has a Facebook account available to the campaign; 0 otherwise	Hierarchical/ individualising	Alexander et al. (2023), Wang et al., (2023), Zhou and Ye, 2019
NPO's Twitter page	Binary = 1 if the organization has a Twitter account available to the campaign; 0 otherwise	Hierarchical/ individualising	Alexander et al. (2023), Wang et al., (2023), Zhou and Ye, 2019
Technical competencies of the team	Binary = 1 if the project introduces the competencies of the team involved in the campaign; 0 otherwise	Hierarchical/ calculative	Cooley (2020), Lowe et al., (2012)
Project content and documentation	Categorical variable with value 1 if synthetic; 2 if extensive; 3 if any documents are included	Hierarchical/ calculative	Cooley (2020), Lowe et al., (2012)
Financial information	Categorical variable with value 1 if no economic data is provided; 2 if there is a synthetic summary of economic figures; 3 if there is a budget	Hierarchical/ calculative	Cooley (2020), Lowe et al., (2012)
Performance follow-up	Binary = 1 if information about the financial progress of the project is provided; 0 otherwise	Hierarchical/ calculative	Cooley (2020), Lowe et al., (2012)
Nr. Facebook shares	Number of Facebook shares of the NPOs campaigns	Socialising	Alexander et al. (2023), Dillard and Vinnari (2019)
Nr. Twitter retweets	Number of retweets of the NPOs campaigns	Socialising	Alexander et al. (2023)
Video (Control)	Binary = 1 if there is a video in the campaign; 0 otherwise		Mollick (2014)
Platform (Control)	Categorical variable transformed into binaries with value 1 if in the particular platform; 0 otherwise		Rossi and Vismara (2018)
Target Amount (Control)	The amount proposed to be reached to close successfully the campaign		Mollick (2014)

Table 1.
Variables summary, description and theory-related features

analysis is part of General Linear Models, it assumes linear relationships and existence of true correlation between variables. Factor analysis might be performed in a confirmatory or explorative approaches on the dataset: the confirmatory approach assesses whether a

proposed factor structure adequately fits the data (Floyd and Widaman, 2005, p. 293), while the exploratory does not impose a predetermined structure on the data's relationships with the goal to make evident any hidden pattern in the dataset. The suitability of the latest approach in our context to isolate accountability forms is double. On the one hand, it allows a data-driven process and reduces possible misleading effects of pure deductive analysis schemes based on theories. On the other hand, it gives statistical evidence to theoretically grouped variables in order to support well-established concepts. In particular, Principal Components Analysis (PCA) is used here to extract maximum variance from the dataset, thus reducing a large number of variables into smaller number of components, namely factors (Tabachnick and Fidell, 2014). Then we check results using different rotation techniques to evaluate if outputs are robust. Once the factors are identified, we model our phenomenon of interest, i.e. NPOs' financing success, into a linear multiple regression framework. This allows us to estimate the composite effects of each accountability form on a measure of NPOs' financing success, after controlling for other important variables.

To sum up, we answer *H1* using data dimensionality reduction techniques such as PCA in order to identify different accountability forms in this context. Then hypothesis *H2*, *H3* and *H4* are addressed into a linear multiple regression framework to estimate the effects of such forms on NPOs' financing success.

4. Results

4.1 Accountability forms

Table 2 reports descriptive statistics of the 797 considered campaigns. In our sample, the maximum amount raised in the sample is 205,032 dollars and the average is 10,879 dollars per campaign. Moreover, backers are on average 86 per campaign. As an example, the most funded project is "Geeks doing good" that offers intensive education programmes for small community farmers and families. It raised 205,032 dollars and can be referred as the most crowded among the analysed projects promoted by Heifer International on Indiegogo with 4,749 backers. Some examples of crowdfunding campaigns are reported in the Appendix.

H1 checks if online accountability of NPOs can be investigated by considering different forms of accountability through explorative PCA. As preliminary tests of suitability of the data for PCA, we look at the Bartlett's test of sphericity and we can strongly confirm that we observe patterned relationships (chi-square = 1126.69 with $p < 0.001$). Then, PCA proceeds as follows. Consider the $n \times p$ data matrix X, whose jth column is the vector x_j of observations on the jth variable. Our goal is to obtain a linear combination of the columns of matrix X with maximum variance of the type $\sum_{j=1}^{p} a_j x_j = Xa$, where a is a vector of constants. The variance of the linear combination is $var(Xa) = a'Ra$, where R is the sample correlation matrix associated with the standardized dataset and denotes transpose. The maximization problem of such variance deals with the extraction of the p eigenvalues and the associated a (unit-norm) eigenvectors, considering only the largest k (with $k \ll p$) eigenvalues associated to the largest k principal components. Particularly, the solution finds k new linear combinations of the data of the type $\sum_{j=1}^{p} a_{jk} x_j = Xa_j$ which maximize variance, subject to uncorrelatedness with previous linear combinations. These linear combinations Xa_k are called the principal components of the dataset and the elements a_k are the principal components loadings.

The procedure suggests the selection of three factors, basing our choice on the Kaiser's criterion (Kaiser, 1960), with corresponding eigenvalues equal to 2.41, 1.63 and 1.38 (we left the fourth since on the border with eigenvalue of 1.04). The three selected synthetic factors explain a cumulative variance of 49% (22% the first component, 15% the second and 12% the

Independent variables					
		Binary = 1		Binary = 0	
*NPO's online mission narrative		94%		6%	
* Proponent type		86.5%		13.5%	
*NPO's FaceBook page		85.6%		14.4%	
*NPO's Twitter page		61.7%		38.3%	
*Performance follow-up		42.7%		57.3%	
* Technical competencies of the team		16.8%		83.2%	
	Min	Max	Mean	St. deviation	Median
* Number of Facebook shares of the NPOs campaigns	0	40,000	458.43	1,791.90	101.00
* Number of retweets of the of the NPOs campaigns	0	10,200	83.30	463.54	5.00

*Project content and documentation

1 (black): synthetic (38%)

2 (grey): extensive (51%)

3 (white): documents included (11%)

*Financial info

1 (black): no economic information (75.2%)

2 (grey): synthetic (24.7%)

3 (white): information includes budget (0.1%)

*Proponent type:

1 (black): Verified NPO (80.2%)

2 (grey): Different subjects proposing a single social initiative (12.7%)

3 (white): Single representative of NPOs (7.1%)

Control variables					
*Video: Binary = 1: 83.6%		Binary = 0: 16.4%			
*Platform: Indiegogo: 62.1%; StartSomeGood: 22.1%; Chuffed: 15.8%					
	Min	Max	Mean	St. deviation	Median
*Target amount	250	1,955,000	32,940.10	113,275.64	14,413

Dependent variables					
	Min	Max	Mean	St. deviation	Median
*Earned amount	5	205,032	10,879.38	18,763.07	5,814.50
*No. of backers	0	4,749	86.12	204.26	50.50

Table 2.
Descriptive statistics
for 797 total campaigns

third), thus half of the total variability of the sample. The rotated component matrix is reported in Table 3, where factor loadings are shown as measures of correlation between variables and factors. Thus, high factor loading indicates that the information content of that particular variable is accounted into the related factor.

To check that our findings are robust, sufficiently general and not subject to a particular decision in the algorithm, we conduct the analysis with different rotations, as explained above. In Figure 1 we report the 3-dimensional loading plots using orthogonal and oblique rotations. We immediately notice that results do not depend on the choice of a particular rotation, and they are stable such that this structure is actually present in the data.

The result of the factor analysis supports the identification of three latent dimensions, that in accordance with the classification of the respective constituent variables proposed by the literature (as reported in Table 1), we associate to three different accountability forms: hierarchical/individualising, hierarchical/calculative and socialising. Factor 1 gathers dimensions associated with hierarchical/individualising form of accountability. Factor 2 is more related to hierarchical/calculative form of accountability. Finally, Factor 3 is identified with socialising form of accountability. Thus, *H1* is confirmed since accountability variables aggregate within different and orthogonal factors suggesting the emergence of significantly separated forms of accountability. Figure 2 synthetically reports the new configuration of accountability forms that we name "*Crowdability*".

4.2 Effects of accountability forms on NPOs' financing success

To test hypotheses *H2*, *H3* and *H4*, we employ multiple linear regression models. Moreover, to take into account the potential clustered structure in the data, i.e. the possible correlation between entities promoted by the same non-profit organisation that might employ similar accountability forms to promote their campaign, we also control for fixed effects in GLMM estimated by the maximum likelihood approach. The resulting estimated models are presented in Table 4.

H2 states that online hierarchical/individualising accountability enhances the financing success of NPOs. The regression model supports *H2* as the hierarchical/individualising accountability is associated with a positive and significant (b = 0.38; $p < 0.01$ in the full Model 4) effect on the NPOs' financing success. It appears that the increase of online hierarchical/individualising accountability (Roberts, 2001) developed by NPOs to represent their mission and achievements (Awio *et al.*, 2011; Vakkuri *et al.*, 2021) increases the financing success of NPOs during crowdfunding campaigns. In particular, one point more in the (standardised) score of hierarchical/individualising accountability increases by 38% the success of the initiative in terms of earned amount.

H3 establishes that online hierarchical/calculative accountability reduces the financing success of NPOs. The regression model confirms *H3* as such an accountability form negatively and significantly impacts (b = −0.127; $p < 0.05$ in Model 2) the level of financing of

	Factor		
	1	2	3
Proponent type	*−0.502*	0.419	−0.121
NPO's online mission narrative	*0.633*	0.007	−0.021
NPO's further information published online	*0.719*	0.034	−0.010
NPO's Facebook page	*0.758*	−0.093	0.037
NPO's Twitter page	*0.628*	−0.020	0.119
Nr. Facebook shares of the NPOs campaigns	0.056	−0.002	*0.833*
Nr. Twitter retweets of the NPOs campaigns	0.032	−0.017	*0.838*
Technical competencies of the team	0.024	*0.592*	−0.076
Project content and documentation	0.209	*0.706*	0.243
Financial information	0.273	*0.294*	0.089
Performance follow-up	−0.183	*0.695*	−0.062

Table 3.
Component Matrix from factor analysis

Note(s): Rotated component matrix using Varimax rotation from principal component analysis. Variables are described in Table 1. Highest factor loadings are reported in italics. The sample considers 797 crowdfunding campaigns as described in Section 3.2
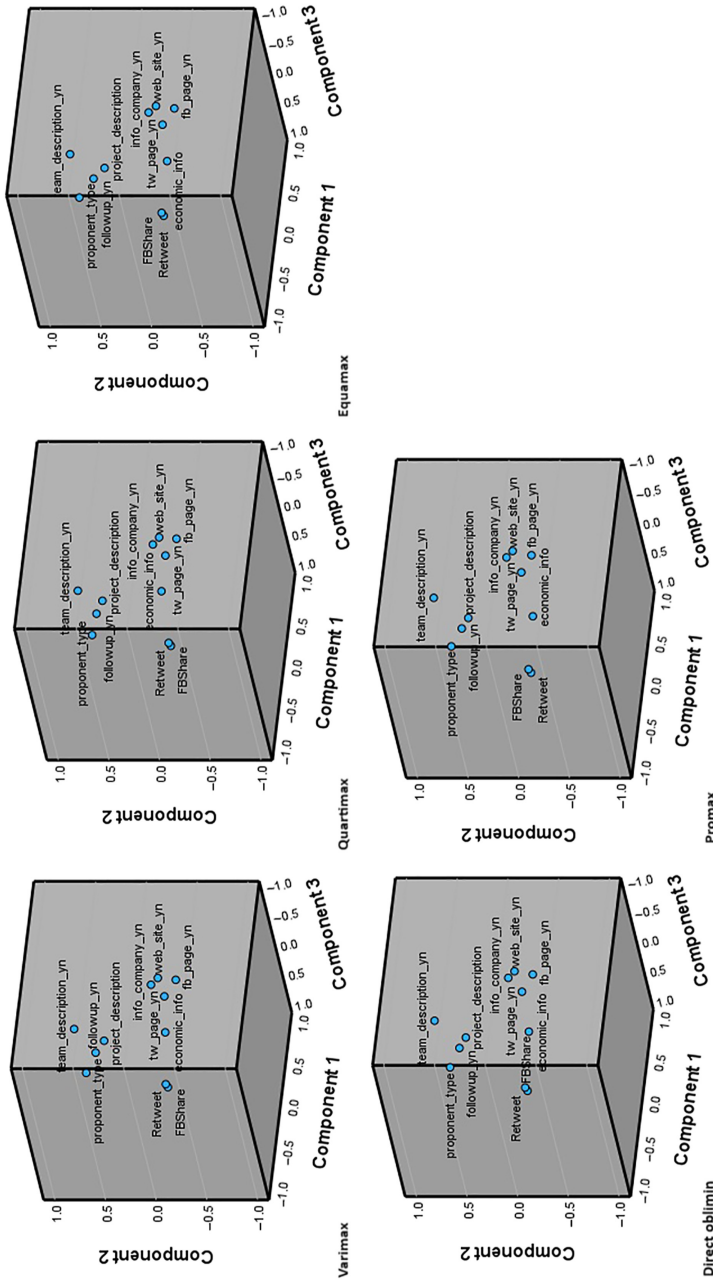
Figure 1.
Loading plots with
different rotations from
factor analysis

Figure 2.
"Crowdability" as
configuration of
accountability forms

Source(s): Authors' elaboration

	Dependent: financing success				Dependent: number of backers
	Model 1	Model 2	Model 3 with factors,	Model 4	Model 5
	with factors	with factors and video	video and platforms	full model	full model
Hierarchical/ individualising accountability form	0.593** (0.049)	0.540** (0.050)	0.383** (0.057)	0.384** (0.058)	0.304** (0.045)
Hierarchical/calculative accountability form	−0.103* (0.050)	−0.127* (0.049)	−0.032 (0.056)	−0.031 (0.057)	−0.007 (0.044)
Socializing accountability form	0.350** (0.049)	0.336** (0.049)	0.273** (0.049)	0.271** (0.051)	0.296** (0.039)
Video		0.681** (0.136)	0.577** (0.146)	0.576** (0.146)	0.394** (0.114)
Platform_Indiegogo			0.838** (0.177)	0.837** (0.177)	0.545** (0.137)
Platform_ Startsomegood			0.221 (0.175)	0.219 (0.175)	−0.024 (0.136)
Target amount				0.001 (0.001)	0.001 (0.001)
Constant	8.403** (0.049)	7.833** (0.124)	7.350** (0.158)	7.348** (0.158)	3.120** (0.123)
Fixed Effects	yes	yes	yes	yes	yes
Pseudo R^2	0.198	0.222	0.249	0.249	0.269
N	797	797	797	797	796

Table 4.
Effects of
accountability forms
on NPOs' financing
success and number of
backers

Note(s): This table reports the results of regressions using a sample of 797 (796 in Model 5) crowdfunding offerings. The dependent variable is the log of earned amount for Models 1–4 and log of number of backers in Model 5. Standard errors are in parentheses. **, * indicate statistical significance at the 1%, 5% levels, respectively. Entity fixed effects are included and models are estimated by maximum likelihood. Type III tests assess statistical significance of fixed effects and models corrected by fixed-effect result significantly different from the non-corrected ones

NPOs, while when controlling for platforms reduces its impact. Nevertheless, it loses its significance when controlling for platforms.

The increase in online hierarchical/calculative accountability (Lowe *et al.*, 2012; Roberts, 1991) decreases NPOs' online financing. This suggests that excessive effort in developing

online hierarchical/calculative accountability can undermine NPOs' ability to enhance financing. The excessive presence of budgets and financial information can overshadow the social mission pursued by non-profit organisations and enhance funders' individualism over prosocial motivations (Chan *et al.*, 2021; Ebrahim *et al.*, 2014; Weisbrod, 2004).

H4 states that online socialising accountability significantly influences the success of NPOs' financing. It emerges that socialising NPOs' accountability developed online has a significant and positive effect on the financing success of NPOs in crowdfunding campaigns (b = 0.271; p < 0.01 in the full Model 4). In particular, one point more in the (standardised) score of socialising accountability increases by 27% the success of the initiative in terms of earned amount. *H4* is confirmed since the analysis shows that online socialising accountability enhances NPOs' financing.

Furthermore, the presence of a video strongly enhances the success of the campaign, while the inclusion of target amount results insignificant for the final outcome.

Moreover, the platform matters since the choice of Indiegogo with respect to the other two increases significantly NPOs' financing success. The characteristics of the platforms' crowd might have an influence on the configuration of *Crowdability* itself when proposing NPOs' projects.

Finally, since crowdfunding campaigns' success is generally associated also to the number of backers (Vismara, 2016), we estimate the full model with another dependent variable. i.e. number of backers, as shown in Model 5. The results remain unchanged and confirm our findings.

Hypothesis and estimation results from the full Model 4 are depicted in Figure 3, where the effects of each accountability form on raised financial resources are summarised.

5. Discussion and conclusions

This study examines the impact of various forms of accountability on NPOs' ability to obtain necessary financial resources. Specifically, it investigates how online production of hierarchical/individualising, hierarchical/calculative and socialising forms of accountability (Roberts, 1991, 2001) influence online financing success of NPOs. While previous research has explored the relationship between accountability and NPO financing (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019), this study delves deeper into accountability by examining the individual effects of each form.

The empirical findings are elaborations from a database containing information on 797 crowdfunding campaigns during which NPOs presented their projects for funding. The results show that accountability can be investigated through three different forms within which online accountability assumes peculiarities about the type of information (documental, narrative, budgetary) and the means of transferring such information (hierarchical or socialising). Furthermore, the effects of these accountability forms on NPOs' financing are significantly different. Individualising form of accountability has a robust positive effect on financing, while calculative form negatively affects financing. Finally, the socialising form of accountability positively affects NPOs' online financing success.

Drawing from the results that emerged from the empirical analysis of the paper, the study advances three main contributions to the three different streams of research: the accountability's role in NPOs' financing, the online accountability forms and the theory on forms of accountability.

5.1 Contribution to accountability's role in NPOs' financing

This paper brings a new perspective into the analysis of the accountability role in enhancing NPOs' financing success. Compared to other studies that consider accountability as a unique entity (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Zhou and Ye, 2019), this study remarks on
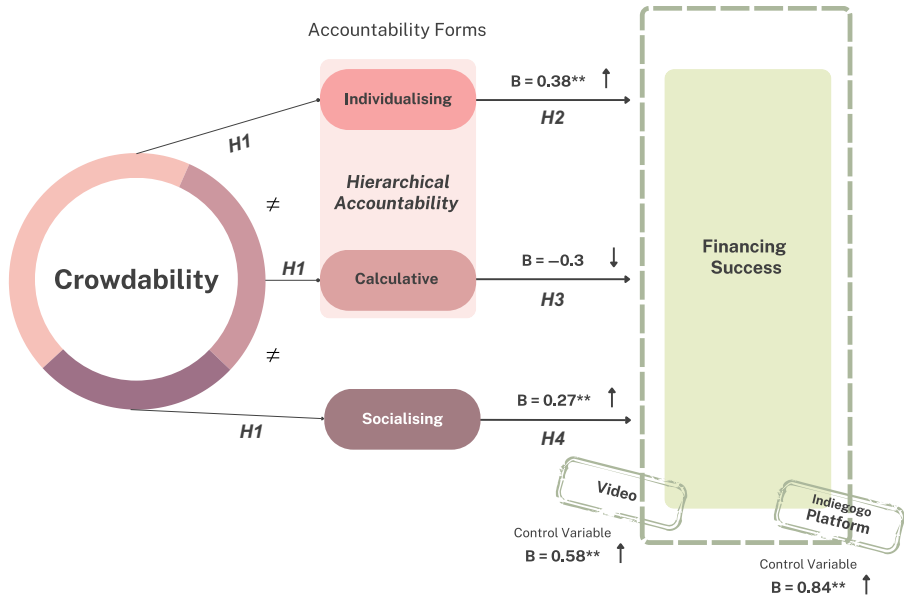
Figure 3.
Configuration of
Crowdability and its
effects on NPOs'
financing success

Source(s): Figure created by authors from the results of Model 4 in Table 4

the importance of unpacking the analysis to consider accountability in different forms, such as individualising, calculative and socialising (Roberts, 1991). The results of this study show a significant difference in the effects of these forms on NPOs' financing. While individualising accountability has a strong positive impact on NPOs' financing, calculative form has a negative effect and, finally, socialising accountability has a positive influence.

This suggests that NPOs funders' willingness to financially support NPOs projects is based on mission and activities narratives (individualising accountability) and socialising relationships (socialising accountability) while budgetary information (calculative accountability) can reduce financing. The negative effect of calculative accountability on financing success of NPOs confirms the idea in the literature (Ebrahim *et al.*, 2014; Jones, 2007; Weisbrod, 2004) that the implementation of numbers, budgets and calculations by NPOs leads to funders' perception of "mission drift".

The main contribution of this insight is that, in the case of NPOs, it is essential to conceptually and practically keep accountability forms separate from one another when exploring the effect that accountability efforts generate in providing NPOs with financial resources.

On the implications side, this indicates that, in order to enhance online fundraising, NPOs should invest in hierarchical/individualising and socialising accountability by providing narratives and explanations about their mission and expected outcomes as well as by fostering in socialising exchanges with and among funders. Otherwise, investing in hierarchical/ calculative accountability by reporting on pure financial results, through budget and balance sheets for example, reduces NPOs' financing and should be limited to enhance financing.

5.2 Contribution to online accountability forms
This paper contributes to a better understanding of the ongoing process of "virtualizing" accountability (Cavicchi and Vagnoni, 2022; Lai *et al.*, 2014) and its effects on NPOs' activities

(Gandia, 2011; Nikidehaghani *et al.*, 2022; Tremblay-Boire and Prakash, 2015), such as
financing.

The paper advances the evidence that, in the realm of NPOs, virtual (online) accountability
presents a tangible effect on NPOs' activities such as in favouring (or preventing) NPOs'
financing. These results contribute to the literature that explores the process of virtualizing of
accountability by addressing the ongoing debate on the possibility of creating accountability
online (Cavicchi and Vagnoni, 2022; Lai *et al.*, 2014). Online hierarchical (individualising and
calculative) and socialising accountability has a significant effect on NPOs financing (positive
or negative), confirming the idea that hierarchical accountability can be virtualized online
(Lowe *et al.*, 2012). In the specific case of online socialising accountability, some studies (Lai
et al., 2014; Lehner and Nicholls, 2014) indicate that the democratic nature of the
Internet allows anyone 'a voice" within online conversations for accountability (Cavicchi
and Vagnoni, 2022), suggesting that socialising accountability can be enhanced in online
spaces. This paper shows that socialising accountability has a positive effect on NPO's online
financing and supports the idea that online spaces are, indeed, places in which socialising
accountability can be relationally co-created. In this realm might be beneficial for exploring
further socialising accountability to focus on online discussions and their dynamic
interactions rather than static reporting on social media.

Our three-dimensional conceptual grounding sets the stage for a more thorough
comprehension of NPOs accountability across online settings.

5.3 Contribution to forms of accountability

Finally, this paper contributes to the accountability literature (Roberts, 1991, 2001;
Westerdahl, 2020) by advancing evidence that the dimensions of hierarchical
accountability form (individualising and calculative) are significantly different and should
be kept tightly separated.

Although Roberts (1991, 2001) suggests that hierarchical accountability is composed of
individualising and calculative dimensions, he maintains that they belong to the same form
and are tightly connected to one another in how calculations reinforce hierarchical/
individualising representation. Individualising self-representations and calculations
represent forms of accountability that proceeds from the accountant to the public
hierarchically. However, this paper supports the idea that when it comes to NPOs,
individualising and calculation forms of accountability are significantly separate from each
other and that this separation is crucial in understanding the different effects that these two
forms of accountability have on stakeholders' trust and legitimacy, such as financing trust in
the case of social projects.

Additionally, this contribution of the paper is supported by implementing an innovative
statistical method that confirms the separation between these two hierarchical accountability
forms starting from empirical evidence rather than pre-defeminated theoretically guided
insights.

5.4 Limitations and avenues for further research

Although our study makes a useful contribution to accountability literature and NPOs'
financing (Alexander *et al.*, 2023; Bellante *et al.*, 2018; Cavicchi and Vagnoni, 2022; Lai *et al.*,
2014; Zhou and Ye, 2019), it is subject to certain limitations, which themselves raise
interesting avenues for future research. The findings of this study show similarities between
expectations in the literature and NPOs' practices in online accountability. The majority of
NPOs analysed used social media platforms to facilitate open-dialogue with stakeholders,
enhancing interaction with multiple users. Through these channels, NPOs disclosed details of
their crowdfunding campaign. At first, we measure socialising accountability as the number

of campaigns' shares on Facebook and retweets on Twitter. It might be beneficial to better capture this accountability dimension by digging into the type of conversation developed online with friends and followers, for example, by exploring the number of posts related to the promotion of the crowdfunding campaign over the total number of published posts. In future research on NPOs' web-based accountability, the online dialogue should be considered based not only on the platforms NPOs use (e.g. websites, Facebook, Twitter) but also on *how* those platforms are used to account for funding purposes. Exploring new avenues for more open and meaningful dialogue can assist a further analysis of the socialising accountability effects on NPOs funding.

Similarly to Rana and Cordery (2024), we can affirm that representing NPOs' effectiveness and impact through calculative measures is challenging and may lead to negative consequences when its excessive focus shifts NPOs' priorities from service to performance evaluation. Thus, future studies might investigate the differences between low and moderate calculative accountability in NPOs and explore further their impacts.

Secondly, this study is grounded in an examination of three diverse international platforms primarily associated with US and UK culture. A potential avenue for further development involves expanding the analysed platforms to include a variety of projects with distinct cultural backgrounds. This expansion would allow for an exploration of how accountability dimensions may be perceived differently across various cultural contexts.

Moreover, in future research, it is important to investigate the role that social accounting tools can play in configuring credibility for NPOs. For example, using them in the development and design of NPO accountability forms during the campaign can contribute to how the information on social impact is disclosed by NPOs so that it can be prominently displayed and understandable to different online users.

References

Ahrens, T., Fabel, F. and Khalifa, R. (2016), "The regulation of cross-border audits of development NPOs: a legitimacy perspective", *Qualitative Research in Accounting and Management*, Vol. 13 No. 4, pp. 394-414, doi: 10.1108/qram-11-2014-0067.

Alexander, A., Pilonato, S. and Redigolo, G. (2023), "Do institutional donors value social media activity and engagement? Empirical evidence on Italian non-profit grantees", *The British Accounting Review*, Vol. 55 No. 5, 101169, doi: 10.1016/j.bar.2022.101169.

Awio, G., Northcott, D. and Lawrence, S. (2011), "Social capital and accountability in grass-roots NGOs: the case of the Ugandan community-led HIV/AIDS initiative", *Accounting, Auditing and Accountability Journal*, Vol. 24 No. 1, pp. 63-92, doi: 10.1108/09513571111098063.

Bagheri, A., Chitsazan, H. and Ebrahimi, A. (2019), "Crowdfunding motivations: a focus on donors' perspectives", *Technological Forecasting and Social Change*, Vol. 146, pp. 218-232, doi: 10.1016/j.techfore.2019.05.002.

Bellante, G., Berardi, L., Machold, S., Nissi, E. and Rea, M.A. (2018), "Accountability, governance and performance in UK charities", *International Journal of Business Performance Management*, Vol. 19 No. 1, pp. 55-74, doi: 10.1504/ijbpm.2018.10008952.

Belleflamme, P., Lambert, T. and Schwienbacher, A. (2013), "Individual crowdfunding practices", *Venture Capital*, Vol. 15 No. 4, pp. 313-333, doi: 10.1080/13691066.2013.785151.

Belleflamme, P., Lambert, T. and Schwienbacher, A. (2014), "Crowdfunding: tapping the right crowd", *Journal of Business Ventures*, Vol. 29 No. 5, pp. 585-609, doi: 10.1016/j.jbusvent.2013.07.003.

Bellucci, M. and Manetti, G. (2017), "Facebook as a tool for supporting dialogic accounting? Evidence from large philanthropic foundations in the United States", *Accounting, Auditing and Accountability Journal*, Vol. 30 No. 4, pp. 874-905, doi: 10.1108/aaaj-07-2015-2122.

Bento, N., Gianfrate, G. and Groppo, S.V. (2018), "Do crowdfunding returns reward risk? Evidences from clean-tech projects", *Technological Forecasting and Social Change*, Vol. 141, pp. 107-116, doi: 10.1016/j.techfore.2018.07.007.

Bonsón, E. and Ratkai, M. (2013), "A set of metrics to assess stakeholder engagement and social legitimacy on a corporate Facebook page", *Online Information Review*, Vol. 37 No. 5, pp. 787-803, doi: 10.1108/oir-03-2012-0054.

Bretschneider, U. and Leimeister, J.M. (2017), "Not just an ego-trip: exploring backers' motivation for funding in incentive-based crowdfunding", *The Journal of Strategic Information Systems*, Vol. 26 No. 4, pp. 246-260, doi: 10.1016/j.jsis.2017.02.002.

Broadbent, J., Dietrich, M. and Laughlin, R. (1996), "The development of principal–agent, contracting and accountability relationships in the public sector: conceptual and cultural problems", *Critical Perspectives on Accounting*, Vol. 7 No. 3, pp. 259-284, doi: 10.1006/cpac.1996.0033.

Bürger, T. and Kleinert, S. (2021), "Crowdfunding cultural and commercial entrepreneurs: an empirical study on motivation in distinct backer communities", *Small Business Economics*, Vol. 57 No. 2, pp. 667-683, doi: 10.1007/s11187-020-00419-8.

Butticè, V., Colombo, M.G., Fumagalli, E. and Orsenigo, C. (2018), "Green oriented crowdfunding campaigns: their characteristics and diffusion in different institutional settings", *Technological Forecasting and Social Change*, Vol. 141, pp. 85-97, doi: 10.1016/j.techfore.2018.07.047.

Calic, G. and Mosakowski, E. (2016), "Kicking off social entrepreneurship: how A sustainability orientation influences crowdfunding success", *Journal of Management Studies*, Vol. 53 No. 5, pp. 738-767, doi: 10.1111/joms.12201.

Cavicchi, C. and Vagnoni, E. (2022), "Digital information systems in support of accountability: the case of a welfare provision non-governmental organisation", *The British Accounting Review*, Vol. 55 No. 5, 101112, doi: 10.1016/j.bar.2022.101112.

Chan, H.F., Moy, N., Schaffner, M. and Torgler, B. (2021), "The effects of money saliency and sustainability orientation on reward based crowdfunding success", *Journal of Business Research*, Vol. 125, pp. 443-455, doi: 10.1016/j.jbusres.2019.07.037.

Chu, V. and Luke, B. (2023), "NPO web-based accountability: how can we know if NPOs are doing good things?", *Nonprofit and Voluntary Sector Quarterly*, Vol. 52 No. 1, pp. 75-105, doi: 10.1177/08997640211062856.

Conaty, F. and Robbins, G. (2023), "Accountability logics in disability service NPOs–Incorporating the role of service user advocacy in accountability and management control systems", *Accounting, Auditing & Accountability Journal*, Vol. 36 No. 4, pp. 1110-1136, doi: 10.1108/aaaj-08-2021-5395.

Connolly, C. and Dhanani, A. (2013), "Exploring the discharge of e-countability by charities", *Journal of Applied Accounting Research*, Vol. 14 No. 2, pp. 108-126, doi: 10.1108/09675421311291874.

Cooley, A. (2020), "Comparative analysis of online accountability practices in three sectors: private, public and nonprofit", *Accounting, Auditing and Accountability Journal*, Vol. 33 No. 3, pp. 1423-1445, doi: 10.1108/aaaj-03-2019-3919.

Cordery, C.J., Baskerville, R. and Porter, B. (2010), "Control or collaboration?: contrasting accountability relationships in the primary health sector", *Accounting, Auditing and Accountability Journal*, Vol. 23 No. 6, pp. 793-813, doi: 10.1108/09513571011065880.

Cordery, C., Belal, A.R. and Thomson, I. (2019), "NGO accounting and accountability: past, present and future", *Accounting Forum*, Vol. 43 No. 1, pp. 1-15, doi: 10.1080/01559982.2019.1593577.

Costa, E., Pesci, C., Andreaus, M. and Taufer, E. (2018), "Empathy, closeness, and distance in non-profit accountability", *Accounting, Auditing and Accountability Journal*, Vol. 32 No. 1, pp. 224-254, doi: 10.1108/aaaj-03-2014-1635.

Cumming, D. and Groh, A.P. (2018), "Entrepreneurial finance: unifying themes and future directions", *Journal of Corporate Finance*, Vol. 50, pp. 538-555, doi: 10.1016/j.jcorpfin.2018.01.011.

Cumming, D.J., Leboeuf, G. and Schwienbacher, A. (2017), "Crowdfunding cleantech", *Energy Economy*, Vol. 2 No. 5, pp. 432-456.

Dethier, F., Delcourt, C. and Willems, J. (2021), "Transparency of nonprofit organizations: an integrative framework and research agenda", *Journal of Philanthropy and Marketing*, Vol. 1725 No. 4, doi: 10.1002/nvsm.1725.

Dillard, J. and Vinnari, E. (2019), "Critical dialogical accountability: from accounting-based accountability to accountability-based accounting", *Critical Perspectives on Accounting*, Vol. 62, pp. 16-38, doi: 10.1016/j.cpa.2018.10.003.

Dumont, G.E. (2013), "Non-profit virtual accountability: an index and its application", *Nonprofit and Voluntary Sector Quarterly*, Vol. 42 No. 5, pp. 1049-1067, doi: 10.1177/0899764013481285.

Ebrahim, A. (2003), "Accountability in practice: mechanisms for NGOs", *World Development*, Vol. 31 No. 5, pp. 813-829, doi: 10.1016/s0305-750x(03)00014-7.

Ebrahim, A. and Weisband, E. (2007), *Global Accountabilities: Participation, Pluralism, and Public Ethics, Global Accountabilities: Participation, Pluralism, and Public Ethics*, Cambridge University Press, Cambridge.

Ebrahim, A., Battilana, J. and Mair, J. (2014), "The governance of social enterprises: mission drift and accountability challenges in hybrid organizations", *Research in Organizational Behavior*, Vol. 34, pp. 81-100, doi: 10.1016/j.riob.2014.09.001.

Eccles, R.G., Serafeim, G. and Krzus, M.P. (2011), "Market interest in nonfinancial information", *Journal of Applied Corporate Finance*, Vol. 23 No. 4, pp. 113-127, doi: 10.1111/j.1745-6622.2011.00357.x.

Ezzamel, M., Robson, K., Stapleton, P. and McLean, C. (2007), "Discourse and institutional change: 'Giving accounts' and accountability", *Management Accounting Research*, Vol. 18 No. 2, pp. 150-171, doi: 10.1016/j.mar.2007.03.001.

Floyd, R. and Widaman, K. (2005), "Factor analysis in the development and refinement of clinical assessment instruments", *Psychological Assessment*, Vol. 7 No. 3, pp. 286-299, doi: 10.1037//1040-3590.7.3.286.

Fortezza, F., Checchinato, F. and Slanzi, D. (2023), "The relationship between brand constructs and motivational patterns in crowdfunding decisions. Evidence from university crowdfunding", *Management Research Review*, Vol. 46 No. 4, pp. 557-578, doi: 10.1108/mrr-10-2021-0750.

Gandìa, J.L. (2011), "Internet disclosure by nonprofit organizations: empirical evidence of nongovernmental organizations for development in Spain", *Nonprofit and Voluntary Sector Quarterly*, Vol. 40 No. 1, pp. 57-78, doi: 10.1177/0899764009343782.

Gerber, E.M., Hui, J.S. and Kuo, P.-Y. (2012), "Crowdfunding: why people are motivated to participate. Northwest", *In Proceedings of the International Workshop on Design, Influence, and Social Technologies: Techniques, Impacts and Ethics*, Vol. 2 No. 11, p. 10.

Gleasure, R. and Feller, J. (2016), "Does heart or head rule donor behaviors in charitable crowdfunding markets?", *International Journal of Electronic Commerce*, Vol. 20 No. 4, pp. 499-524, doi: 10.1080/10864415.2016.1171975.

Goddard, A. and Juma Assad, M. (2006), "Accounting and navigating legitimacy in Tanzanian NGOs", *Accounting, Auditing and Accountability Journal*, Vol. 19 No. 3, pp. 377-404, doi: 10.1108/09513570610670343.

Hemer, J. (2011), "A snapshot on crowdfunding", *Enconstor*, Vol. 39, available at: http://www.isi-lehre.de/isiwGlobal/wGlobal/scripts/accessDocument.php?wAuthIdHtaccess=800364842&document=/isi-wAssets/docs/p/de/arbpap_unternehmen_region/ap_r2_2011.pdf&display=1&forceDownload=0

Hommerová, D. (2020), "Crowdfunding as a new model of nonprofit funding", in *Financing Nonprofit Organizations*, Routledge, London.

Hörisch, J. (2018), "'Think big' or 'small is beautiful'? An empirical analysis of characteristics and determinants of success of sustainable crowdfunding projects", *International Journal of Entrepreneurial Venturing*, Vol. 10 No. 1, pp. 111-129, doi: 10.1504/ijev.2018.090982.

Jackson, P.M. (1982), *The Political Economy of Bureacracy*, Philip Allan, London.

Joannides, V. (2012), "Accounterability and the problematics of accountability", *Critical Perspectives on Accounting*, Vol. 23 No. 3, pp. 244-257, doi: 10.1016/j.cpa.2011.12.008.

Jones, M.B. (2007), "The multiple sources of mission drift", *Nonprofit and Voluntary Sector Quarterly*, Vol. 36 No. 2, pp. 299-307, doi: 10.1177/0899764007300385.

Kaiser, H.F. (1960), "The application of electronic computers to factor analysis", *Educational and Psychological Measurement*, Vol. 20 No. 1, pp. 141-151, doi: 10.1177/001316446002000116.

Kingston, K.L., Furneaux, C., de Zwaan, L. and Alderman, L. (2020), "From monologic to dialogic: accountability of nonprofit organisations on beneficiaries' terms", *Accounting, Auditing and Accountability Journal*, Vol. 33 No. 2, pp. 447-471, doi: 10.1108/aaaj-01-2019-3847.

Kolbe, M., Mansouri, S. and Momtaz, P.P. (2022), "Why do video pitches matter in crowdfunding?", *Journal of Economics and Business*, Vol. 122, 106081, doi: 10.1016/j.jeconbus.2022.106081.

Korzynski, P., Haenlein, M. and Rautiainen, M. (2021), "Impression management techniques in crowdfunding: an analysis of Kickstarter videos using artificial intelligence", *European Management Journal*, Vol. 39 No. 5, pp. 675-684, doi: 10.1016/j.emj.2021.01.001.

Lagazio, C. and Querci, F. (2018), "Exploring the multi-sided nature of crowdfunding campaign success", *Journal of Business Research*, Vol. 90, pp. 318-324, doi: 10.1016/j.jbusres.2018.05.031.

Lai, A., Leoni, G. and Stacchezzini, R. (2014), "The socializing effects of accounting in flood recovery", *Critical Perspectives on Accounting*, Vol. 25 No. 7, pp. 579-603, doi: 10.1016/j.cpa.2014.04.002.

Lee, J., Park, Y.J. and Gong, X. (2023), "How do government grants affect nonprofit financial effectiveness? The mediation role of process accountability", *Administration and Society*, Vol. 55 No. 1, pp. 122-157, doi: 10.1177/00953997221112824.

Lehner, O.M. (2013), "Crowdfunding social ventures: a model and research agenda", *Venture Capital*, Vol. 15 No. 4, pp. 54-78, doi: 10.1080/13691066.2013.782624.

Lehner, O.M. and Nicholls, A. (2014), "Social finance and crowdfunding for social enterprises: a public–private case study providing legitimacy and leverage", *Venture Capital*, Vol. 16 No. 3, pp. 271-286, doi: 10.1080/13691066.2014.925305.

Lehner, O.M., Harrer, T. and Quast, M. (2019), "Building institutional legitimacy in impact investing: strategies and gaps in financial communication and discourse", *Journal of Applied Accounting Research*, Vol. 20 No. 4, pp. 416-438, doi: 10.1108/jaar-01-2018-0001.

Li, Y.Z., He, T.L., Song, Y.R., Yang, Z. and Zhou, R.T. (2018), "Factors impacting donors' intention to donate to charitable crowd-funding projects in China: a UTAUT-based model", *Information Communication and Society*, Vol. 21 No. 3, pp. 404-415, doi: 10.1080/1369118x.2017.1282530.

Li, Y., McKernan, J. and Chen, M. (2022), "Turning around accountability", *Accounting, Auditing and Accountability Journal*, Vol. 35 No. 1, pp. 48-60, doi: 10.1108/aaaj-08-2020-4889.

Löher, J., Schneck, S. and Werner, A. (2018), "A research note on entrepreneurs' financial commitment and crowdfunding success", *Venture Capital*, Vol. 2, pp. 123-145.

Lowe, A., Locke, J. and Lymer, A. (2012), "The SEC's retail investor 2.0: interactive data and the rise of calculative accountability", *Critical Perspectives on Accounting*, Vol. 23 No. 3, pp. 183-200, doi: 10.1016/j.cpa.2011.12.004.

Manetti, G. and Bellucci, M. (2016), "The use of social media for engaging stakeholders in sustainability reporting", *Accounting, Auditing and Accountability Journal*, Vol. 29 No. 6, pp. 985-1011, doi: 10.1108/aaaj-08-2014-1797.

McKernan, J.F. (2012), "Accountability as aporia, testimony, and gift", *Critical Perspective on Accounting*, Vol. 23 No. 3, pp. 258-278, doi: 10.1016/j.cpa.2011.12.009.

Messner, M. (2009), "The limits of accountability", *Accounting Organization and Society*, Vol. 34 No. 8, pp. 918-938, doi: 10.1016/j.aos.2009.07.003.

Meyskens, M. and Bird, L. (2015), "Crowdfunding and value creation", *Entrepreneurship Research Journal*, Vol. 5 No. 2, pp. 155-166, doi: 10.1515/erj-2015-0007.

Moleskis, M., Alegre, I. and Canela, M.A. (2019), "Crowdfunding entrepreneurial or humanitarian needs? The influence of signals and biases on decisions", *Nonprofit and Voluntary Sector Quarterly*, Vol. 48 No. 3, pp. 552-571, doi: 10.1177/0899764018802367.

Mollick, E. (2014), "The dynamics of crowdfunding: an exploratory study", *Journal of Business Venturing*, Vol. 29 No. 1, pp. 1-16, doi: 10.1016/j.jbusvent.2013.06.005.

Nikidehaghani, M., Andrew, J. and Cortese, C. (2022), "Algorithmic accountability: robodebt and the making of welfare cheats", *Accounting, Auditing and Accountability Journal*, Vol. 36 No. 2, pp. 677-711, doi: 10.1108/aaaj-02-2022-5666.

O'Dwyer, B. and Unerman, J. (2007), "From functional to social accountability: transforming the accountability relationship between funders and non-governmental development organisations", *Accounting, Auditing and Accountability Journal*, Vol. 20 No. 3, pp. 446-471, doi: 10.1108/09513570710748580.

Panozzo, F. (1996), "Accountability and identity: accounting and the democratic organization", in Munro, R. and Mouritsen, J. (Eds), *Accountability: Power, Ethos and the Technologies of Managing*, Thompson International Business Press, Oxford.

Pitschner, S. and Pitschner-Finn, S. (2014), "Non-profit differentials in crowd-based financing: evidence from 50,000 campaigns", *Economics Letters*, Vol. 123 No. 3, pp. 392-394, doi: 10.1016/j.econlet.2014.03.022.

Plaisance, G. (2023), "Accountability in French non-profit organizations: between paradox and complexity", *Journal of Applied Accounting Research*, Vol. 25 No. 3, pp. 420-447, doi: 10.1108/jaar-01-2023-0006.

Rana, T. and Cordery, C.J. (2024), "Digitalization as a form of marketization: the performativity of calculative practices in framing and overflowing NGO performance and accountability", *The British Accounting Review*, Vol. 56 No. 1, 101176, doi: 10.1016/j.bar.2023.101176.

Reutner, L. and Greifeneder, R. (2018), "It takes time (not money) to understand: money reduces attentiveness to common ground in communication", *Journal of Experimental Social Psychology*, Vol. 74, pp. 212-217, doi: 10.1016/j.jesp.2017.09.014.

Roberts, J. (1991), "The possibilities of accountability", *Accounting, Organizations and Society*, Vol. 16 No. 4, pp. 355-368, doi: 10.1016/0361-3682(91)90027-c.

Roberts, J. (2001), "Trust and control in Anglo-American systems of corporate governance: the individualizing and socializing effects of processes of accountability", *Human Relations*, Vol. 54 No. 12, pp. 1547-1572, doi: 10.1177/00187267015412001.

Rossi, A. and Vismara, S. (2018), "What do crowdfunding platforms do? A comparison between investment-based platforms in Europe", *Eurasian Business Review*, Vol. 8 No. 1, pp. 93-118, doi: 10.1007/s40821-017-0092-6.

Schwienbacher, A. and Larralde, B. (2010), "Crowdfunding of small entrepreneurial ventures", in Cumming, D.J. (Ed.), *The Oxford Handbook of Entrepreneurial Finance*, Oxford University Press, Oxford, available at: https://ssrn.com/abstract=1699183

Shin, N. and Chen, Q. (2016), "An exploratory study of nonprofit organisations' use of the internet for communications and fundraising", *International Journal of Technology, Policy and Management*, Vol. 16 No. 1, pp. 32-44, doi: 10.1504/ijtpm.2016.075937.

Tabachnick, B.G. and Fidell, L.S. (2014), "Principal components and factor analysis - general purpose and description", in Tabachnick, B.G. (Ed.), *Using Multivariate Statistics*, Pearson, Boston, pp. 659-675.

Tian, F., Labban, A., Shearer, R. and Gai, Q. (2021), "The impact of social media activity on nonprofit donations in China. Voluntas: international", *Journal of Voluntary and Nonprofit Organizations*, Vol. 32 No. 2, pp. 488-497, doi: 10.1007/s11266-019-00168-7.

Toxopeus, H. and Maas, K. (2018), "Crowdfunding sustainable enterprises as a form of collective action", in *Designing a Sustainable Financial System*, Palgrave Macmillan.

Tremblay-Boire, J. and Prakash, A. (2015), "'Accountability.org: online disclosures by US Nonprofits', Voluntas", *International Journal of Voluntary and Nonprofit Organizations*, Vol. 26 No. 2, pp. 693-719, doi: 10.1007/s11266-014-9452-3.

Unerman, J. and O'Dwyer, B. (2006), "Theorising accountability for NGO advocacy", *Accounting, Auditing & Accountability Journal*, Vol. 19 No. 3, pp. 349-376, doi: 10.1108/09513570610670334.

Vakkuri, J., Johanson, J.-E., Feng, N.C. and Giordano, F. (2021), "Governance and accountability in hybrid organizations – past, present and future", *Journal of Public Budgeting, Accounting & Financial Management*, Vol. 33 No. 3, pp. 245-260, doi: 10.1108/jpbafm-02-2021-0033.

Van Teunenbroek, C. and Hasanefendic, S. (2023), "Researching the crowd: implications on philanthropic crowdfunding and donor characteristics during a pandemic", *Journal of Philanthropy and Marketing*, Vol. 28 No. 1, p. 1773, doi: 10.1002/nvsm.1773.

Vismara, S. (2016), "Equity retention and social network theory in equity crowdfunding", *Small Business Economics*, Vol. 46 No. 4, pp. 579-590, doi: 10.1007/s11187-016-9710-4.

Vohs, K. (2015), "Money priming can change people's thoughts, feelings, motivations, and behaviors: an update on 10 years of experiments", *Journal of Experimental Psychology: General*, Vol. 144 No. 4, pp. 86-93, doi: 10.1037/xge0000091.

Wang, Z., Zhang, S., Zhao, Y., Chen, C. and Dong, X. (2023), "Risk prediction and credibility detection of network public opinion using blockchain technology", *Technological Forecasting and Social Change*, Vol. 187, pp. 122-177, doi: 10.1016/j.techfore.2022.122177.

Weisbrod, B.A. (2004), "The pitfalls of profits", *Stanford Social Innovation Review*, Vol. 2 No. 3, pp. 1-40.

Westerdahl, S. (2020), "Yield and the city: Swedish public housing and the political significance of changed accounting practices", *Critical Perspectives on Accounting*, Vol. 80, pp. 161-354, doi: 10.1016/j.cpa.2020.102161.

Xu, W. and Saxton, G.D. (2019), "Does stakeholder engagement pay off on social media? A social capital perspective", *Nonprofit and Voluntary Sector Quarterly*, Vol. 48 No. 1, pp. 28-49, doi: 10.1177/0899764018791267.

Yasmin, S. and Ghafran, C. (2019), "The problematics of accountability: internal responses to external pressures in exposed organisations", *Critical Perspectives on Accounting*, Vol. 64, 102070, doi: 10.1016/j.cpa.2019.01.002.

Zhou, H. and Ye, S. (2019), "Legitimacy, worthiness, and social network: an empirical study of the key factors influencing crowdfunding outcomes for nonprofit projects", *VOLUNTAS: International Journal of Voluntary and Nonprofit Organizations*, Vol. 30 No. 4, pp. 849-864, doi: 10.1007/s11266-018-0004-0.

(The Appendix follows overleaf)

Appendix
Map of the localization of the campaigns
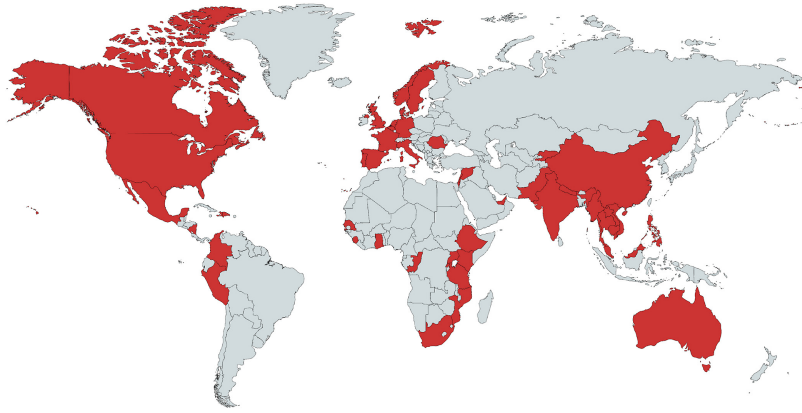
Source(s): Authors' elaboration

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